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### Remarks

This is responsive to the Office Action dated December 16, 2004. Claims 1, 3, 4, 6, 8-11, 13-18 and 22 are pending in the application. Claims 14-18 and 22 have been withdrawn from consideration.

#### **1. Objection to Drawings Under 37 CFR §1.83(a).**

The Examiner has objected to the drawings under 37 CFR §1.83(a) stating that the laminar member of the closure in addition to the annular sealing ring must be shown or the feature canceled from the claims. Applicant respectfully suggests to the Examiner that the laminar member of the closure and the annular sealing ring are properly shown in the drawings. The laminar member is shown at numeral (21), i.e. the laminar member is in the form of a circular disc. The annular sealing ring is shown at numeral (24). Therefore, Applicant respectfully suggests that no new drawings are required.

#### **2. Objection to Specification Under 37 CFR §1.75(d)(1).**

The Examiner has objected to the specification under 37 CFR §1.75(d)(1) and MPEP §608.01(o) and has required correction of "the rigid cap further having a laminar member" from which the annular skirt depends. Applicant has amended the specification to make it clear that the laminar member is in the form of circular disc (21) having a cylindrical, annular skirt 22 depending downwardly therefrom. No new matter has been added. Support can be found in original claim 5 filed with the priority document PCT/IB98/00825, which recited a "rigid closure includes a laminar member and an annular skirt depending downwardly therefrom . . ." and dependent claim 6 of the present application. Referring to the specification at page 6, lines 33-34, which prior to amendment read that the rigid cap 12 "comprising a circular disc 21 having a cylindrical, annular skirt 22 depending downwardly therefrom," makes it abundantly clear that the laminar member is in the form of a circular disc.

#### **3. Objection to Claim 6.**

Claim 6 has been amended to delete "extending" and substitute "extends."

#### **4. Rejection Under 35 USC §112(1).**

Claims 1, 3, 4, 6, 8-11 and 13 are rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. As noted above, Applicants have amended the

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specification. No new matter has been added. It is believed with the amendment to the specification, the rejection under 35 USC §112, first paragraph, has been overcome.

**5. Rejection Under 35 USC §112 (2).**

The Examiner has rejected claims 1, 3, 4, 6, 8-11 and 13 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention, specifically state that the structure of the claims is not clearly set forth. Applicant confirms that the seal is not a structural element but merely the engagement between the membrane and the open end of the container. Applicant has amended the claims to include the recitation of the container from the preamble. Further, as noted above Application confirms that the laminar member is in the form of a circular disc. With these clarifications, it is believed that the rejection under §112(2) has been overcome.

**6. Rejection Under 35 USC §103**

In view of the rejections under §112(2), the Examiner did not give any prior art rejection but stated that the claimed invention is not considered to avoid the prior art of record. Applicant would like to take this opportunity to more fully explain the nature of the invention and how it distinguishes over Hiroshi.

The present invention as claimed relates to a container assembly comprising a container closure for an open-ended container. The container assembly is adapted to initially contain uncooked or partially cooked food products.

After the food products have been placed in the container, the container is sealed by means of a flexible membrane that is sealed to the closure, and further by means of a rigid cap which has a resiliently deformable member juxtaposed to the flexible membrane in use of the closure. Further, the rigid cap is shaped so that the flexible membrane can deform by a limited amount only in use.

Once the container has been sealed, the contents of the container are heated in order to cook the food completely and also to simultaneously sterilize the interiors of the cans. During the cooking process pressure is built up within the container.

It had therefore previously been thought not possible to employ flexible membrane type easy

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open ends in a continuous mass production of cans, the contents of which require cooking *in situ* as stated in the description. This is primarily because the heating process causes expansion of gases sealed *within* the cans and causes further gases to evaporate from the food products, with a result that the seals between the flexible membranes and can ends burst, or less desirably leak in a manner that is difficult to detect.

Applicant respectfully suggests that the Examiner's prior objection to the invention as claimed, on the ground that it would have been obvious to alter the Hiroshi device in order to ensure that the outer lid 5 is spaced apart from the plastic sheet 3 by a distance less than the maximum possible extension of the flexible member towards the laminar member is not correct.

As mentioned in the application as originally filed, at the time that this application was filed it had not previously been possible to employ flexible membrane type easy open ends in the continuous mass production of cans, the contents of which require cooking *in situ* (see the PCT application as published page 2 lines 25 to 31).

As stated in this passage this is primarily because the heating process causes expansion of gases sealed within the cans, and causes further gases to evaporate from the food products, with the result that the seals between the flexible membranes and the can ends burst, or less desirably leak in a manner that is difficult to detect.

At the time that the present application was filed, a person skilled in the art of continuous mass production of cans, the contents of which require cooking *in situ*, would not be motivated to look to the teachings of Hiroshi, since the heating process would be likely to cause the thin plastic sheet to burst or leak or become removed from the container.

The Hiroshi document is directed towards a plastic container for a retort in which already cooked food is placed within the retort in order to be sterilized (see paragraph 13 of the English translation of Hiroshi, for example).

There is no mention or suggestion in Hiroshi that uncooked foods would be placed within the retort and that such foods would be cooked during the heating process.

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On the contrary, it is clear from Hiroshi that food products are placed within the container and subject to heat treatment in order that they can be sterilized under pressure (see paragraph 1 of the English translation of Hiroshi, for example).

There would be no reason why a person skilled in the art, in considering use of containers in the continuous mass production of cans, the contents of which require cooking *in situ*, would look at the teachings of Hiroshi, since the Hiroshi container relates to a very different area of technology, namely the sterilizing of already cooked food products.

Clearly, there would be no need for the sheet 3 in Hiroshi to be flexible because there is no build-up of pressure within the container that needs to be accommodated.

Since all the pressure would be applied from outside the container in Hiroshi, the outer lid would withstand the pressure, and the sheet 3 would not be affected by the pressure.

An important feature of the present invention as claimed is that the reinforcing pressure applied to the seal (i.e., applied to the flexible membrane 11, forcing the membrane against flange 18) may be arranged to increase as the pressure inside the can increases, since this increases the force conferred by the flexible membrane on the resiliently deformable material.

This is achieved due to the fact that as pressure builds up during the cooking process, the pressure within the space between the cap 12 and the flexible membrane 11 increases. This increases pressure on an outer side of the flexible membrane. This is an important feature of the present invention since it results in the flexible membrane being pushed more firmly onto the flange 18 as the pressure within the can increases. Thus the integrity of the seal increases as the pressure increases (see Figure 1).

In sharp contrast, the device disclosed in Hiroshi includes ventilation holes 8. These holes are designed to enable pressure to escape from the container when the contents of the container are being heated in the microwave oven. However, the ventilation holes remain open during the sterilization process, and therefore pressure built up in the space between the sheet 3 and the outer lid 5 may escape through the ventilation holes 8.

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This means that the integrity of the seal formed between the outer lid 5 and the sheet 3 in Hiroshi is unlikely to be as good as that of the seal form by means of the present invention.

The use of the two cam and follower pairs means that the pressure exerted by the resiliently deformable member on the flexible membrane is increased. This enhances the integrity of the seal and means that the seal is able to withstand higher pressures built up within the container.

The Examiner has been asked to explain why she thinks that it would be obvious to adapt the container of Hiroshi in order to arrive at the container assembly claimed in Claim 1 of this application. The Examiner has not yet provided us with such an explanation.

The Examiner stated in point 11 of the official communication dated 14 January 2002 that "a recital of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art" and that "if the prior art structure is capable of performing the intended use, then it meets the claim".

As set out above, Applicant suggests that the Hiroshi container would not be capable of performing the intended use, i.e., of providing a container able to withstand pressures built up internally within the container for the reasons set out hereinabove.

#### 7. Conclusion

With the amendments and arguments presented above, Applicant believes that this response addresses all issues raised by the Examiner and clearly distinguishes over the art of record. Applicant has made a novel and unobvious contribution to the art of container closures and respectfully submits that with the arguments and amendments presented herein all pending claims are allowable over the art of record, for at least the reasons discussed above, and respectfully requests that a Notice of Allowance with respect to all pending claims be issued in this case.

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If the Examiner believes that a teleconference would be of further value in expediting the allowance of the pending claims, the undersigned can be reached at the telephone number listed below. The present response is being filed within the three-month statutory period for response and no fee or petition for an extension is due. If, however, it is believed that any additional fees are necessary, the Commissioner is hereby authorized to charge or credit any such fees or overpayment to Deposit Account No. (Reference #350013-65).

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Respectfully submitted,

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